

Date: 2020-10-28

Subject: Recommendation report – Capacity Improvements Review of Goreway Drive between Humberwest Parkway and Cottrelle Boulevard - Ward 8 (eSCRIBE item number 2020-347, Capital Works File No. 11-3165-211)

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Report Number: Public Works & Engineering-2020-347

Recommendations:

1. That the report titled Recommendation report - **Capacity Improvements Review of Goreway Drive between Humberwest Parkway and Cottrelle Boulevard - Ward 8 (eSCRIBE item number 2020-347, Capital Works File No. 11-3165-211)**, to the Committee of Council meeting dated November 18, 2020, be received; and,
2. That Council direct staff to proceed with the design to widen Goreway Drive between Humberwest Parkway and Yorkland Boulevard to four lanes with multi use paths on both sides of the road and resurface the two lane rural section of Goreway Drive between Yorkland Boulevard and Cottrelle Boulevard as outlined in Option 3 in this report;

Overview:

- A traffic re-assessment was completed on Goreway Drive between Humberwest Parkway and Cottrelle Boulevard to evaluate the current and forecasted traffic for 2041;
- Staff considered three options for improving capacity on Goreway Drive between Humberwest Parkway and Cottrelle Boulevard based on the latest traffic reassessment;
- Option 3 is recommended as the preferred option as it is most cost effective solution, with the least environment impact while addressing transportation needs;
- The following are the design elements for Option 3:

- **Four lane widening on Goreway Drive between 170 meter north of Humberwest Parkway and Yorkland Boulevard with multi-use path on both sides;**
- **Two lane rural cross-section on Goreway Drive with center turning left turn lane from Yorkland Boulevard to 440 meter north of Yorkland Boulevard with paved shoulder including buffer on both sides;**
- **No widening on Goreway Drive between 440 meter north of Yorkland Boulevard and Cottrelle Boulevard but will include resurfacing of the existing two lane road with paved buffered shoulder; and**
- **Structure rehabilitation of the two crossing structures as per the Appendix 'B' in the future when required;**
- **Ongoing monitoring and evaluation of the road network will determine if any other improvements are required in future on this section of Goreway Drive.**

Background:

The detailed design is underway for the four lane widening on Goreway Drive between 170 meter north of Humberwest Parkway and Cottrelle Boulevard based on the approved Class Environmental Assessment (EA) and approved Transportation Master Plan (TMP). The current scope of the design includes the following:

- Preloading the valley with engineered fill to construct the road platform, raising the existing road approximately an average of two meters to mitigate the 100 year flood at a watercourse crossing;
- Four lane general purpose road widening;
- Intersection improvements;
- Structure widening/replacement;
- Channel works and compensation for loss of natural habitat to comply Toronto Region Conservation Authority (TRCA) / Ministry of Environment and Conservation Parks (MECP) permit requirements;
- Multi-use trail on both sides;
- Landscape improvements, streetscape improvements, utility relocations, transit infrastructure improvements, Accessibility of Ontarians Disability Act (AODA) requirements, traffic signal relocation and new street light illuminations.

In 2020, City Staff completed a travel demand forecast model (TDM) forecasted for 2041 which evaluated the traffic volumes and current roadway capacity for the section of Goreway Drive between Humberwest Parkway and Cottrelle Boulevard. This is

typically done prior to all road widening's to confirm the original recommendations and assumptions of the TMP and the EA.

Current Situation:

The current scope of work for the widening of this section of Goreway Drive has significant impacts to environment and large utility relocation costs. In 2020, as part of the due diligence to confirm earlier approved EA recommendations, City staff reviewed the travel demand forecast for the segment of Goreway Drive between Humberwest Parkway and Cottrelle Boulevard for 2041 and the results showed that the future traffic needs do not warrant a widening as originally planned, particularly with the current widening on Humberwest Parkway and the future completion of the connection for Cottrelle Boulevard.

As a result of these findings, various scenarios were reviewed for consideration moving forward as summarized in the Table 1, in consultation with Transportation Planning.

Table 1

| | |
|---|--|
| <p>Option 1 (original scope) Four lane road widening to urban cross-section with multi-use path on both sides</p> | <ul style="list-style-type: none"> • Four lane widening urban cross-section with multi-use trail on both sides from 170 meter north of Humberwest Parkway and Cottrelle Boulevard; • Raise the existing road two meters for the 100 year flood mitigation at the watercourse crossing • Preloading to fill the valley in order to construct road platform for widening; • Project cost is approximately \$32.5 million; |
| <p>Option 2 Four lane road widening southern section only with two lane road partial widening at Yorkland north, urban cross-section with multi-use path on both sides</p> | <ul style="list-style-type: none"> • Four lane urban cross-section with multi-use trails on both sides from 170 meter north of Humberwest Parkway to Yorkland Boulevard; • Two lane urban cross-section and center turning left turn lane from Yorkland Boulevard to 440 meter north of Yorkland Boulevard with multi-use trails on both sides; • Two lane urban cross-section from 440 meter north of Yorkland Boulevard to Cottrelle Boulevard with partial widening, multi-use trails on both sides; • Raise the existing road two meters for the 100 year flood mitigation at the watercourse crossing; • Preloading to fill a portion of the valley in order to construct road platform for partial widening; • Project cost is approximately \$26.5 million; |
| <p>Option 3 (Recommended)</p> | <ul style="list-style-type: none"> • Four lane widening urban cross-section with multi-use trail on both sides from 170 meter |

| | |
|--|--|
| Four lane road widening southern section only with 2 lane road resurfacing at Yorkland north, rural cross-section with paved buffered shoulders. | <p>north of Humberwest Parkway to Yorkland Boulevard.</p> <ul style="list-style-type: none"> • Two lane rural cross-section and center turning left turn lane from Yorkland Boulevard to 440 meter north of Yorkland Boulevard with paved shoulder and buffer on both sides. • Resurface existing two lane road rural cross-section from 440 meter North of Yorkland Boulevard to Cottrelle Boulevard with paved shoulder and buffer, no sidewalks or multi-use paths and rehabilitate existing water crossing structures in future when required; • Project cost is approximately \$10.5 million and cost for Structures rehabilitation required in future (6-10 years from today) is \$2 million. |
|--|--|

Staff prepared a detailed Goreway Drive capacity review assessment table for above options based on consultation with various departments at City as shown in Appendix A. All the risks and challenges were reviewed for each of the options, as there are significant impacts to capital cost, utilities and the environment especially in the regulated area of TRCA and MECP to consider. This review and a key map identifying the location of the project and cross-sections for all options are attached in the appendices of this report for additional reference.

Staff recommend Option 3 as the preferred option for the following reasons:

- The modeling has indicated the road does not need to be widened to accommodate forecasted 2041 traffic as originally thought.
- The design for Cottrelle Boulevard is being finalized and once constructed will provide an additional connecting link for vehicles, pedestrians and cyclists. Cottrelle Boulevard is scheduled to be tendered in spring 2021 (pending permit receipt) and should be in use by 2024.
- Due to the potential of flooding with a 100 year flood event, any widening of the existing road in the valley will require the road to be raised approximately two meters. By not widening this section of the road to four lanes or for multi-use pathways, it can remain at its existing elevation saving costs and dramatically reducing the impact on the environment.
- The multi-use path starting at the south end of Goreway Drive will transition to a paved buffered shoulder in the non-widened section to accommodate active transportation to the multi-use paths on Cottrelle Boulevard.
- There are cost savings associated with not relocating utilities.

Option 3 provides connectivity for cycling and pedestrians to multi use paths which are planned to be constructed part of the next phase of the Goreway Drive four lane widening from Cottrelle Boulevard to Countryside Drive and the new section of Cottrelle

Boulevard from Goreway Drive to Humberwest Parkway. Additional signage is proposed to be placed in order to inform public of the potential flooding on a 100 year flood event at watercourse crossing (an existing risk) and for the two lane section of Goreway Drive where there will be no multi use path. Speed reduction measures will also be reviewed.

The tentative construction start of this project based on the adoption of Option 3 would be in spring 2023.

Staff will continue to monitor traffic volumes and the capacity of Goreway Drive. In the future, this section of road can be widened as per the original scope if needed. In the event that the traffic volumes do not materialize, staff could consider the option of dead ending Goreway Drive south of Cottrelle Boulevard. This option would require an amendment to an already approved Class Environmental Assessment including additional technical studies, extensive public and stakeholder consultation to assess the impact. Either way, staff would report back to Council for approval on a recommendation on moving forward at that time.

Corporate Implications:

Financial Implications:

Sufficient funding is available within the Public Works & Engineering approved Capital Budget for detailed design, property acquisitions and utility relocations.

Funding for the construction will be made through a future capital budget request, and is estimated to be \$10.5 Million for Option 3 recommended in this report.

The estimated costs and funding sources for each of the options are summarized below in the table and detailed in the attached presentation in Appendix 'A':

| Options | [\$ Million] | | |
|---|--------------|-------|------------|
| | DC Funding | Tax | Total Cost |
| Option 1 – Four lane widening between 170 meter north of Humberwest Parkway and Cottrelle Boulevard as per the TMP & EA (urban) | 30.90 | 1.60 | 32.50 |
| Option 2 - Four lane widening between 170 meter north of Humberwest Parkway and Yorkland Boulevard and two lanes between Yorkland Boulevard and Cottrelle Boulevard (urban) | 7.00 | 19.50 | 26.50 |
| Option 3 - Four lane widening between 170 meter north of Humberwest Parkway and Yorkland Boulevard and two lanes between Yorkland Boulevard and Cottrelle Boulevard (rural) | 6.00 | 4.50 | 10.50 |

Purchasing Implications:

Any required contract amendments to the consultant for design will be approved in accordance with the Purchasing By-law.

Term of Council Priorities:

The recommendation of Option 3 as per attached Appendix 'A' part of this report achieves the Term of Council Priorities for a Healthy and Safe City by building well-planned infrastructure and aligns with Brampton's 2040 Vision – Transportation and Connectivity, and Health.

Conclusion:

Staff considered three options for Goreway Drive (Humberwest Parkway to Cottrelle Boulevard) and recommend, based on the information presented in this report, Option 3 which includes four lane widening on south end and two lanes resurfacing with paved buffered shoulder on north end.

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Attachments: Appendix 'A' – Capacity review assessment table
Appendix 'B' – Key map
Appendix 'C' – Cross-sections for all options